

We claim:

1. A vaccine composition comprising an enterohemorrhagic *Escherichia coli* (EHEC) cell culture supernatant and an immunological adjuvant.

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2. The vaccine composition of claim 1, wherein the EHEC is EHEC O157:H7.

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3. The vaccine composition of claim 1, wherein the EHEC is EHEC O157:NM.

4. The vaccine composition of claim 1, wherein the immunological adjuvant comprises an oil-in-water emulsion.

5. The vaccine composition of claim 2, wherein the immunological adjuvant comprises an oil-in-water emulsion.

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6. The vaccine composition of claim 4, wherein the immunological adjuvant comprises a mineral oil and dimethyldioctadecylammonium bromide.

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7. The vaccine composition of claim 5, wherein the immunological adjuvant comprises a mineral oil and dimethyldioctadecylammonium bromide.

8. The vaccine composition of claim 6, wherein the immunological adjuvant is VSA3.

9. The vaccine composition of claim 7, wherein the immunological adjuvant is VSA3.

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10. The vaccine composition of claim 8, wherein VSA3 is present in the composition at a concentration of about 20% to about 40% (v/v).

11. The vaccine composition of claim 10, wherein VSA3 is present in the composition at a concentration of about 30% (v/v).

12. The vaccine composition of claim 9, wherein VSA3 is present in the composition at a 5 concentration of about 20% to about 40% (v/v).

13. The vaccine composition of claim 12, wherein VSA3 is present in the composition at a concentration of about 30% (v/v).

10 14. The vaccine composition of claim 1, further comprising one or more recombinant or purified EHEC antigens selected from the group consisting of EspA, EspB, EspD, Tir and Intimin.

15 15. The vaccine composition of claim 14, wherein EspA + Tir comprise at least 20% of the cell protein present in the composition.

16 16. A method for eliciting an immunological response in a mammal against a secreted enterohemorrhagic *Escherichia coli* (EHEC) antigen, said method comprising administering to said mammal a therapeutically effective amount of a composition comprising an EHEC cell culture supernatant.

20 17. The method of claim 16, wherein the EHEC is EHEC O157:H7.

18. The method of claim 16, wherein the mammal is a ruminant.

25 19. The method of claim 18, wherein the ruminant is a bovine subject.

20. The method of claim 16, wherein the composition further comprises an immunological adjuvant.

21. The method of claim 17, wherein the composition further comprises an immunological adjuvant.

22. The method of claim 20, wherein the immunological adjuvant comprises an oil-in-water emulsion.

23. The method of claim 21, wherein the immunological adjuvant comprises an oil-in-water emulsion.

24. The method of claim 22, wherein the immunological adjuvant comprises a mineral oil and dimethyldioctadecylammonium bromide.

25. The method of claim 23, wherein the immunological adjuvant comprises a mineral oil and dimethyldioctadecylammonium bromide.

26. The method of claim 24, wherein the immunological adjuvant is VSA3.

27. The method of claim 25, wherein the immunological adjuvant is VSA3.

28. The method of claim 16, wherein the composition further comprises one or more recombinant or purified EHEC antigens selected from the group consisting of EspA, EspB, EspD, Tir and Intimin.

29. The method of claim 28, wherein EspA + Tir comprise at least 20% of the cell protein present in the composition.

30. A method for eliciting an immunological response in a ruminant against a secreted enterohemorrhagic *Escherichia coli* O157:H7 (EHEC O157:H7) antigen, said method comprising

administering to said ruminant a therapeutically effective amount of a composition comprising an EHEC O157:H7 cell culture supernatant and VSA3.

31. The method of claim 30, wherein VSA3 is present in the composition at a concentration
5 of about 20% to about 40% (v/v).

32. The method of claim 31, wherein VSA3 is present in the composition at a concentration
of about 30% (v/v).

10 33. A method for reducing colonization of enterohemorrhagic *Escherichia coli* (EHEC) in a
ruminant comprising administering to said ruminant a therapeutically effective amount of a
composition comprising an EHEC cell culture supernatant and an immunological adjuvant.

15 34. A method for reducing shedding of enterohemorrhagic *Escherichia coli* (EHEC) from a
ruminant comprising administering to said ruminant a therapeutically effective amount of a
composition comprising an EHEC cell culture supernatant and an immunological adjuvant.